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| 09/744,836 | 06/28/2001 | Wendy Victoria Jane Young | CM1869M/VB | 5673 |

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| EXAMINER |
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GOLLAMUDI, SHARMILA S

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 14

Application Number: 09/744,836
Filing Date: June 28, 2001
Appellant(s): YOUNG ET AL.

Brian M. Bolam Reg. No. 37,513
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 8, 2003.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The rejection of claims 1 to 15 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

| | | |
|--------------|------------------|---------|
| 5,567,428 | HUGHES | 10-1996 |
| 5,482,703 | PINGS | 01-1996 |
| GB 2,297,757 | BERTHIAUME ET AL | 08-1996 |

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

A. Claims 1-4, 6-9, and 11-15 are rejected under 35 U.S.C. 102 (b) as being anticipated by Hughes (US 5,567,428). This rejection is set forth in prior Office Action, Paper No. 10.

Hughes discloses a hair conditioner containing a non-volatile polysiloxane resin (col. 11 to col. 12), a dimethicone copolymer, and lipid material (cetyl alcohol) (Note example IX and X). Hughes discloses the substituent group is selected from aryl, arylalkyl, and alkaryl (col. 12, lines 24-40). The reference discloses a viscosity of 100

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centistokes and the preference for MQ resins (col. 11, lines 4-15 and col. 11, lines 66).

A hair conditioner and shampoo are taught in example IX and X.

B. Claims 1-15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Hughes (US 5,567,428). This rejection is set forth in prior Office Action, Paper No. 10.

Hughes discloses a hair conditioner containing a non-volatile polysiloxane resin (col. 11 to col. 12), a dimethicone copolymer, and lipid material (cetyl alcohol) (Note example IX and X). Hughes discloses the substituent group is selected from aryl, arylalkyl, and alkaryl (col. 12, lines 24-40). The reference discloses a viscosity of 100 centistokes and the preference for MQ resins (col. 11, lines 4-15 and col. 11, lines 66). A hair conditioner and shampoo are taught in example IX and X.

Hughes does not exemplify where the polysiloxane is a 2-phenylpropyl polysiloxane resin. Although Hughes teaches all the substituent groups, he does not exemplify all the groups. Further, a packaged product is not taught.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to any one of the suggested substituent groups suggested by Hughes with the expectation of similar results since the reference teaches that they are all suitable. It is deemed obvious to one of ordinary skill in the art at the time the invention was made for one to place the composition in a packaged container in order to make it available to the consumer.

C. Claim 5 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Hughes (US 5,567,428) in view of GB 2,297,757. This rejection is set forth in prior Office Action, Paper No. 10.

As set forth above, Hughes teaches topical personal care compositions containing polysiloxane resins.

Hughes does not teach the instant polysiloxane resin.

GB teaches a low viscosity organofunctionalized siloxysilicates. The low viscosity property allows for high loading of active ingredients without the deleterious effects such as difficulty in spraying, etc. (pg. 2). GB teaches the modified siloxysilicates possess high refractive indexes than other alkyl substituted siloxysilicates (pg. 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hughes and GB since GB teaches the modifies resins have a high refractive indexes for shine.

D. Claims 1-15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Pings (US 5,482,703) in view of GB 2,297,757. This rejection is set forth in prior Office Action, Paper No. 10.

Pings discloses a hair conditioning composition containing dimethicone copolyol (col. 3), nonvolatile polydimethylsiloxane, lipid material (col. 4, lines 60-65), and a cationic surfactant (col. 5) in instant amounts (Note claim 1 and examples).

Pings does not teach the instant polysiloxane resin.

GB teaches a low viscosity organofunctionalized siloxysilicates for hair care compositions. The low viscosity property allows for high loading of active ingredients without the deleterious effects such as difficulty in spraying, etc. (pg. 2). GB teaches the modified siloxysilicates possess high refractive indexes than other alkyl substituted siloxysilicates (pg. 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings since GB teaches the modified resins have a high refractive indexes for shine and soil resistance. It is deemed obvious to one of ordinary skill in the art at the time the invention was made for one to place the composition in a packaged container in order to make it available to the consumer.

(11) *Response to Argument*

A. Claims 1-4, 6-9, and 11-15 are rejected under 35 U.S.C. 102 (b) as being anticipated by Hughes (US 5,567,428). This rejection is set forth in prior Office Action, Paper No. 10.

Applicant argues that Hughes does not anticipate the instant invention since Hughes example IX is not a leave-in-hair conditioner with a polysiloxane resin having a substituent group possessing delocalized electrons in order to reduce tackiness and greasiness. It is argued that the conditioner in example IX is a rinse-off conditioner. Applicant argues that Hughes discloses numerous drying aids, all of which are not the instant polysiloxane resins. It is argued that the examiner incorrectly construes example IX, wherein the copolymer premix contains a polysiloxane-grafted adhesive polymer, a

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volatile solvent, and trimethylsiloxysilicate. The applicant further lists the ingredients in the example and argues that none are crosslinked polysiloxane resins. Lastly, it is argued that the compositions contain a polysiloxane adhesive grafted polymer, a volatile silicone solvent, a drying aid, and silicone hair conditioning agents. It is argued that the compositions contain four to five different type of silicone materials.

In regards to the above argument, first the examiner points out that the claims do not recite whether the polysiloxane resins are crosslinked since polysiloxane resins exist in both forms. Therefore, the applicant's arguments rely on a feature that is not recited in the claims. The scope of the claims clearly allows for either a crosslinked or non-crosslinked form. The applicant is incorrect that Hughes does not teach silicon resins with the instant properties. The examiner points out that Hughes discloses drying aids which are selected from silicon resins (crosslinked) or silicone fluids/ waxes (uncrosslinked). Although the applicant argues that Hughes teaches numerous drying aids, Hughes in fact teaches a clear preference for the instant drying aids. Hughes states that "silicon resins are *especially preferred* for use in the present invention since they can increase style hold strength" on column 11, lines 30-33. Further, it is pointed out that all the drying aids taught by Hughes encompass the applicant's broad recitation of generic polysiloxane resins in the independent claim and those recited in dependent claims. The examiner points out that applicant does not claim a specific polysiloxane as argued, even with the inclusion of the dependent claims, the applicant's polysiloxane resins encompass a broad category in itself and to exemplify every type of R group and MDTQ nomenclature in one patent is impossible; therefore the columns disclosing the

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generic structure with possible R moieties are said to anticipate the instant invention. The substituent groups (methyphenyl, monomethyl, etc.) are taught with the preferred substituted silicone resin being methyl. In regards to the delocalized electrons, the examiner respectfully points out that these substituent groups, for instance Hughes's methyl group, inherently contains delocalized electrons. Although the reference does not explicitly disclose this property, it is a property of electrons to distribute themselves to a stable arrangement such that the electron are delocalized or shared by several nuclei. In relying on this theory of inherency, the examiner provided the applicant with a copy of page 24 of *Organic Chemistry* by Francis Carey. On column 10, line 65 to column 12, lines 3, Hughes discloses crosslinked silicon resins with MQ resins and on column 11, line 67 to column 12, line 1, Hughes states "especially preferred are MQ resins." Hughes discloses the second category of drying aids, silicone fluids/waxes that include uncrosslinked polysiloxane with the instant R groups (these R groups inherently contain the delocalized electrons) of claim 3 on column 12, line 24-40, which also reads on the instant polysiloxane resins. While it is agreed that example IX does not incorporate silicone resins (MQ resins) as the drying aid, it is submitted that the disclosure of column 11-12 and claims 7-11 clearly support that silicone resins are anticipated in place of the trimethylsiloxysilicate. Further, example V teaches polydimethylsiloxane as the drying aid for example X, a shampoo composition.

Secondly, it is pointed out that applicant's arguments regarding Hughes's conditioner is not a leave in type, it is respectfully pointed out that the intended use of a product claim is not given patentable weight unless a structural limitation is placed on

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the product. In the instant case, Hughes teaches a conditioner in example IX which is capable of performing said function. In regards to the method claim 9, the examiner points out that example IX does teach a conditioner and although Hughes states that the conditioner "is useful as a rinse off conditioner", Hughes does not limit the conditioner to a rinse off conditioner.

In regards to the argument that the instant invention has reduced tack and reduced greasiness, it is first pointed out that these features are not recited in the claims and although the claims are read in light of the specification, limitations from the specification are not read into the claims. Furthermore, it is established in *In re Spada* if the prior art's composition is substantially identical to the claimed invention, then it must have the same properties.

Lastly in regards to Hughes's compositions contain four to five different types of silicone materials, it is respectfully submitted that the open claim language does not exclude additional materials in the composition.

Therefore, since the bar for anticipation is that the reference must teach each and every element of the claim in a single prior art reference and Hughes discloses every element of the rejected claims, it is respectfully submitted that Hughes anticipates the instant invention.

B. Claims 1-15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Hughes (US 5,567,428). This rejection is set forth in prior Office Action, Paper No. 10.

Applicant argues that Hughes concerns personal care compositions generally and are characterized in that they contain a polysiloxane adhesive polymer and drying

aid. It is argued that the functionality of the adhesive polymer is improved by the incorporation of the drying aid. Applicant argues that Hughes disclose a large array of suitable drying aids. Applicant argues that the MQ resins of Hughes since the instant invention must have a substituent other than methyl and applicant refers to page 6 of the specification. It is argued there is no motivation in Hughes to select a particular drying aid when it is not preferred or exemplified.

In response to the above argument, the examiner points out that although Hughes teaches and exemplifies several cosmetic products such as acne products and sunscreen compositions, Hughes clearly teaches hair products as seen in examples VII to X.

In regards to the drying aids, the examiner points to column 11-12 wherein the instant polysiloxane resins are taught. Further on column 11, lines 10-33, Hughes states that silicone resins are *especially* preferred since they can increase style hold strength of hair in hair care composition and decrease drying time. On column 11, line 67, Hughes states that MQ resins are especially preferred. Claims 7-11 also envisage MQ resins as the drying aids. Hughes discloses polyalkylaryl siloxanes on column 12, lines 20-40. Therefore, clearly Hughes teaches the instant polysiloxane resins. For arguendo sake if one were to say that Hughes does not prefer these two drying resins, it is well established in *In re Susi* that discloses examples and preferred embodiments do not constitute a teaching away from the broader disclosure or non-preferred embodiments in the prior art. Nowhere in US patent 5,567,428, does Hughes teach away from the use

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of these polysiloxanes; not exemplifying all embodiments of an invention does not mean the invention teaches away from those embodiments.

Lastly in regards to the argument that the MQ resins of Hughes are different since the instant invention must have a substituent other than methyl, it is pointed out that applicant's arguments are based on limitations that are not recited in the rejected claims. Furthermore, applicant refers to page 6 of the instant specification to support this statement; however it is pointed out that applicant's statement in the arguments presented in the appeal brief is incorrect. Page 6 of the specification states "more preferred are resins where the other substituent groups are alkyl, especially methyl." This preference is also seen in US patent 5,5567,428 on column 11, lines 66 where Hughes states "the preferred substituent is methyl."

Therefore, it is respectfully submitted that the instant claims are obvious to one of ordinary skill in the art since the subject matter in the prior art is suggestive of the subject matter in the present invention.

C. Claim 5 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Hughes (US 5,567,428) in view of GB 2,297,757. This rejection is set forth in prior Office Action, Paper No. 10.

Applicant argues that there is not motivation to look to GB 2,297,757 to resolve the deficiencies of Hughes. Applicant argues that there is no motivation for one of ordinary skill in the art to select the resins of GB over the more preferred drying aids in Hughes.

In response to the above argument, the examiner points out that GB discloses that the instant MQ silicone resins are especially suitable for skin and hair care products as seen on page 1. *In re Sernaker* establishes that strongest rationale for combining references is a recognition, expressly or implied in the prior art of some advantage or expected beneficial result resulting from the combination. In the instant case and as set forth in the prior Office Action, GB discloses several advantages in utilizing the instant resins. On page 1, GB states that the instant silicones have low viscosities to allow the higher loading of active ingredients in cosmetic products without the problems associated with viscous products such as difficulty in spraying. On page 4, it is disclosed that the incorporation of the MQ resins provides an all-in-one formulation of cleansing, conditioning, and volumizing benefits, unlike the prior art formulations. Additionally, GB states that the instant resins have excellent hair fixative qualities. On page 5, GB also teaches that the instant silicone resins coat the hair to enhance shine by coating the hair with a material having high refractive index. Therefore, one of ordinary skill in the art would be motivated to look to GB and utilize the instant MQ resin since GB clearly teaches several advantages of the polysiloxane resin, namely enhancing hair shine and conditioning qualities. It is well established that the prior art can be modified or combined to reject claims as *prima facie* obvious as long as there is a reasonable expectation of success. In instant case, one would expect similar results by combining Hughes and GB since Hughes clearly teaches the use of MQ silicone resins, known as drying aids, in US patent 5,567,428. Further, Hughes teaches the preference of silicone resins since they increase hair fixative strength and drying time.

Additionally, MQ resins are taught as the preferred silicon resins. Therefore, a skilled artisan would be motivated to look to combine the teachings of Hughes and GB and arrive at the instant invention.

Therefore, it is respectfully submitted that the instant claims are obvious to one of ordinary skill in the art since the subject matter in the prior art is suggestive of the subject matter in the present invention.

D. Claims 1-15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Pings (US 5,482,703) in view of GB 2,297,757. This rejection is set forth in prior Office Action, Paper No. 10.

Applicant argues that Ping discloses rinse-off products that contain silicone conditioning agent, dimethicone copolyol, a lipid material, a cationic surfactant, and water. It is argued that the instant invention is directed towards a leave-on hair treatment with reduced tack and greasiness. Applicant argues that combining GB with Pings is a hindsight attempt to obtain the instant invention. It is argued that GB teaches resins that do not have substituent groups that possess delocalized electrons. Thus, the groups may (containing a methyl or phenyl) or may not be delocalized (containing an H). Applicant argues therefore an artisan must first choose the delocalized electron resins of GB and then combine it with Pings and there is no motivation to do so.

Ping is directed toward hair care compositions that improve the appearance, feel, and manageability of the hair. As recognized by the applicant, Ping discloses a hair product that contains a silicone conditioning agent, dimethicone copolyol, a lipid material, a cationic surfactant, and water. The silicone conditioning agent is a material

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that imparts conditioning benefits to the hair. Ping teaches on column 3, lines 5-8 that polydimethylsiloxanes are preferred. Further, Ping teaches that the polydimethylsiloxanes may be substituted with alkyl groups. As set forth above, alkyl groups inherently possess delocalized electrons in an effort to distribute themselves in a more stable arrangement. Further, Ping teaches that organofunctional silicones may be utilized as the silicone conditioning agents on column 3, line 30.

GB 2,297,757 is relied upon to teach the instant polysiloxane resins (MQ resins and the instant R groups). As set forth above, GB teaches organofunctional silicones and the inventive goal is to provide silicon resins with better qualities such as low viscosity, improved conditioning properties, increased hair shine, etc. On page 1, GB states that the instant silicones have low viscosities to allow the higher loading of active ingredients in cosmetic products without the problems associated with viscous products such as difficulty in spraying. On page 4, it is disclosed that the incorporation of the MQ resins provides cleansing, conditioning, and volumizing benefits, unlike the prior art formulations. Additionally, GB discloses that the instant resins have excellent hair fixative qualities. On page 5, GB also teaches that the instant silicone resins coat the hair to enhance shine by coating the hair with a material having high refractive index. Therefore, one of ordinary skill in the art would be motivated to look to GB and utilize the instant MQ resin since GB clearly teaches several advantages of the polysiloxane resin, namely enhancing hair shine and conditioning qualities. It is established under 103 (a) that the prior art can be modified or combined to reject claims as *prima facie* obvious as long as there is a reasonable expectation of success. In

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instant case, Pings teaches that the silicone-conditioning agent may be organofunctional silicone and GB teaches a specific organofunctional silicone; therefore there is a reasonable expectation of success. Further, since Pings and GB are directed towards improving hair feel, look, and manageability utilizing silicone materials and GB clearly teaches an improved silicone conditioning agent, there is clearly a motivation to utilize the instant resin.

In regards to the picking and choosing of GB's resins, the examiner points out that GB teaches one possible delocalized configuration which is hydrogen. However, GB teaches that the R group may be hydrogen, methyl, phenyl, phenylethyl, or any alkyl group; therefore it is clear that implicitly GB's preference is towards delocalized electrons. It should be noted that Pings also utilizes delocalized substituent group of a polydimethylsiloxane.

In response to the above argument, it is respectfully pointed out that the intended use of a product claim is not given patentable weight unless a structural limitation is placed on the product. In the instant case, Pings teaches a hair conditioning compositions, which are capable of performing said function. In regards to method claim 9, the examiner points to column 2, lines 25 wherein Ping teaches preferably using the composition as a rinse-type conditioner but does not teach away from a leave-on type conditioner.

In regards to the argument that the instant invention has reduced tack and reduced greasiness, it is first pointed out that these features are not recited in the claims and although the claims are read in light of the specification, limitations from the

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specification are not read into the claims. Furthermore, if the prior art's composition is substantially identical to the claimed invention, then it must have the same properties.

Therefore, it is respectfully submitted that the instant claims are obvious to one of ordinary skill in the art since the subject matter in the prior art is suggestive of the subject matter in the present invention.

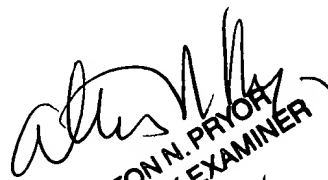
For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


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November 13, 2003

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